

CLAIM AMENDMENTS

1. (Currently Amended) A method comprising:
~~generating~~ providing a first signal having a fundamental frequency;
providing a complex input signal and the first signal to Gilbert cell multipliers to
modulate the ~~modulating an~~ input signal with the first signal; and
tuning the modulation to a harmonic of the fundamental frequency to produce a modulated signal having a carrier frequency near the harmonic, the modulated signal having substantially more spectral energy near the harmonic than near the fundamental frequency.
2. (Cancelled)
3. (Original) The method of claim 1, wherein the tuning comprises:
establishing a filtering passband for the modulation, the passband including frequencies near the harmonic.
4. (Original) The method of claim 1, wherein the tuning comprises:
filtering out spectral energy of the modulated signal near the fundamental frequency.
5. (Original) The method of claim 1, wherein the harmonic comprises an odd harmonic.
- 6.-7. (Cancelled)
8. (Currently Amended) The method of claim 1, wherein the tuning comprises:
coupling a bandpass filter to output terminals of ~~at least one~~ the Gilbert cell ~~multiplier~~
multipliers.

9. (Currently Amended) A system comprising:
an oscillator to generate a first signal having a fundamental frequency;
a modulator comprising Gilbert cell multipliers to modulate ~~an~~ a complex input signal
with the first signal; and
a filter coupled to the modulator to tune the modulation to a harmonic of the fundamental
frequency to produce a modulated signal having a carrier frequency near the harmonic, the
modulated signal has substantially more spectral energy near the harmonic than near the
fundamental frequency.

10. (Cancelled)

11. (Original) The system of claim 9, wherein the filter establishes a passband for the
modulation, the passband including frequencies near the harmonic.

12. (Original) The system of claim 9, wherein the filter filters out spectral energy
located near the fundamental frequency.

13. (Original) The system of claim 9, wherein the harmonic comprises an odd
harmonic.

14.-15. (Cancelled)

16. (Original) The system of claim 9, wherein the filter comprises a band pass filter.

17. (Currently Amended) A transmitter comprising:
a modulation system comprising Gilbert cell multipliers to:
receive a first signal having a fundamental frequency,
receive ~~an~~ a complex input signal,
modulate the input signal with the first signal, and
tune the modulation to produce a modulated signal having a carrier frequency near
a harmonic of the fundamental frequency of the first signal, the modulated signal having
substantially more spectral energy near the harmonic than near the fundamental
frequency; and
circuitry to communicate the modulated signal to a communication medium.
18. (Original) The transmitter of claim 17, wherein the modulation system comprises:
a modulator to modulate the input signal with the first signal; and
a filter coupled to the modulator to tune in the modulation to a harmonic of the
fundamental frequency to produce the modulated signal.
19. (Original) The transmitter of claim 18, wherein the filter establishes a passband
for the modulation, the passband including frequencies near the harmonic.
20. (Original) The transmitter of claim 18, wherein the filter filters out spectral
energy of the second signal located near the fundamental frequency.
21. (Original) The transmitter of claim 18, wherein the filter comprises a bandpass
filter.
22. (Original) The transmitter of claim 17, wherein the harmonic comprises an odd
harmonic.
- 23.-42. (Cancelled)